

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25 (canceled).

Claim 26 (currently amended): A mobile information processor, comprising:

a processor;

a memory device which stores instructions, which when executed by the processor, cause the processor to:

perform a communication means for performing data communication with an external apparatus;

a storage means for storing information of nearby apparatuses; and

collect a controller means for collecting information of accessible nearby apparatuses and store storing the information in a the storage means;

acquire user information of said processor from a remote user information database based on said information of at least one of the nearby apparatuses;

request a communication service to a service provider based on the acquired user information; and

utilize said communication service based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.

Claim 27 (currently amended): The A—mobile information processor of according to Claim 26, wherein when executed by the processor, the instructions cause the processor to receive the controller means receives the information of the nearby apparatuses from a space directory, wherein said space directory: which

(a) stores the information of the nearby apparatuses; and

(b) ~~updates information of nearby apparatuses, stored in the storage means.~~

Claim 28 (currently amended): ~~The A~~-mobile information processor ~~of according to~~
Claim 26, wherein ~~when executed by the processor, the instructions cause the processor to:~~

(a) ~~receive the controller means receives~~ the information of the nearby apparatuses
from a space directory which stores the information of the nearby apparatuses;
~~and, while,~~

(b) ~~in response to a transmission challenge from the space directory, transmit the~~
~~controller means transmits~~ encrypted data of the challenge created by its own
secret key together with a public-key certificate to the space directory.

Claim 29 (currently amended): ~~The A~~-mobile information processor ~~of according to~~
Claim 26, wherein ~~when executed by the processor, the instructions cause the processor to the~~
~~communication means perform~~ Bluetooth wireless communication.

Claim 30 (currently amended): ~~The A~~-mobile information processor ~~of according to~~
Claim 26, wherein ~~when executed by the processor, the instructions cause the processor to the~~
~~controller means periodically collect collects~~ the information of the accessible nearby
apparatuses.

Claim 31 (currently amended): ~~The A~~-mobile information processor ~~of according to~~
Claim 26, wherein ~~when executed by the processor, the instructions cause the processor to~~

(a) ~~communicate the controller means communicates~~ with a personal directory which
stores original data of information of nearby apparatuses through a communication relay
included in the nearby apparatuses, ~~and registers~~

(b) ~~register~~ a position of the mobile information processor in the personal directory.

Claim 32 (currently amended): An information processor, comprising:
a processor;
a memory device which stores instructions, which when executed by the processor, cause the processor to:
perform a communication means for performing data communication with an external apparatus;
storage means for storing original information of nearby apparatuses; and
acquire user information of said processor from a remote user information database based on information of at least one nearby apparatus;
receive a controller means for receiving a service request from the external apparatus based on the acquired user information; through the communication means and
provide providing—at least part of the original information as nearby apparatus information to the external apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.

Claim 33 (currently amended): The An-information processor of according to Claim 32, wherein when executed by the processor, the instructions cause the processor to register the controller means registers position information of the external apparatus.

Claim 34 (currently amended): An information processor, comprising:
a processor;
a memory device which stores instructions, which when executed by the processor, cause the processor to:
perform a communication means for performing data communication with an external apparatus;
a storage means for storing information of information processors in a local area; and
acquire user information of said processor from a remote user information database based on information of at least one nearby apparatus;
receive a controller means for receiving a service request from the external apparatus based on the acquired user information; through the communication means and

~~provide~~ providing a service to the external apparatus based on based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information and the information of the information processors.

Claim 35 (currently amended): ~~The An~~ information processor ~~of~~ according to Claim 34, wherein when executed by the processor, the instructions cause the processor to transmit the controller means transmits the information of the information processors about nearby apparatuses stored in the storage means to the external apparatus.

Claim 36 (currently amended): ~~The An~~ information processor ~~of~~ according to Claim 34, wherein when executed by the processor, the instructions cause the processor to;

before transmitting the information of the information processors about nearby apparatuses, ~~stored in the storage means to the external apparatus,~~ perform the controller means performs authentication processing by challenge response; ~~wherein the controller means performs~~

perform challenge transmission; and receives

receive encrypted data of the challenge transmission created by a secret key of the external apparatus and a public-key certificate as a response from the external apparatus.

Claim 37 (currently amended): ~~The An~~ information processor ~~of~~ according to Claim 34, wherein when executed by the processor, the instructions cause the processor to the communication means perform Bluetooth wireless communication.

Claim 38 (currently amended): A data communication system, comprising:
a mobile apparatus storing information of nearby apparatuses; and
a personal directory which:

~~stores original information of the nearby apparatuses and~~

(a) acquires user information of said mobile apparatus from a remote user information database based on information of at least one of the nearby apparatuses;

(b) receives a service request from the mobile apparatus through a network based on the acquired user information; and

(c) provides a service to the mobile apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information according to the service request.

Claim 39 (currently amended): ~~The A~~-data communication system of ~~according to~~ Claim 38, further comprising a service provider, wherein the service provider provides a second service based on information obtained from the personal directory.

Claim 40 (currently amended): ~~The A~~-data communication system of ~~according to~~ Claim 38, further comprising a space directory server which stores information of information processors in a local area, wherein the space directory server:

acquires user information of said space directory from a remote user information database based on said information of at least one nearby apparatus;

receives a service request including information of nearby apparatuses from the mobile apparatus based on the acquired user information; and provides

provides a service through the nearby apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.

Claim 41 (currently amended): The A-data communication system of according to Claim 40, wherein the service providing process is performed through a service provider.

Claim 42 (currently amended): A method of obtaining information of nearby apparatuses by using a mobile information processor, the method comprising:

accessing a space directory which stores the information of the nearby apparatuses;

transmitting, in response to a transmission challenge from the space directory, encrypted data of the challenge created by its own secret key together with a public-key certificate to the space directory;

receiving the information of the nearby apparatuses from the space directory; and

~~storing the received information in a storage means;~~

acquiring user information from a remote user information database based on said information of at least one of the nearby apparatuses;

requesting a communication service to a service provider based on the acquired user information; and

utilizing said communication service based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.

Claim 43 (currently amended): ~~The A-method of according to~~ Claim 42, further comprising communicating with a personal directory, which stores original data of the information of nearby apparatuses, so as to register position information of the mobile information processor in the personal directory.

Claim 44 (currently amended): A data communication method, comprising:
obtaining information of nearby apparatuses as information of information processors in a local area, ~~and storing the obtained information in a storage means,~~ the step of obtaining being performed by a mobile apparatus;
acquiring user information from a remote user information database based on said information of at least one of the nearby apparatuses; and
transmitting, based on the acquired user information, a service request including the information of the nearby apparatuses from the mobile apparatus to a personal directory, which stores original data of the information of nearby apparatuses, so that the personal directory provides a service through the nearby apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.

Claim 45 (currently amended): ~~The A-data communication method of according to~~ Claim 44, which includes obtaining wherein the information of the nearby apparatuses is obtained from a space directory server which stores the information of information processors as nearby apparatuses.

Claim 46 (currently amended): ~~The A-data communication method of according to~~ Claim 44, which includes transmitting wherein the service request is ~~transmitted through~~ a service provider.

Claim 47 (currently amended): A data communication method, comprising:

obtaining information of nearby apparatuses as information of information processors in a local area directly from the information processor, ~~and storing the obtained information in a storage means,~~ the step of obtaining being performed by a mobile apparatus; and

acquiring user information from a remote user information database based on said information of at least one of the nearby apparatuses; and

receiving, based on the acquired user information, a service request including the information of the nearby apparatuses from the mobile apparatus, the step of receiving being performed by a personal directory which stores original data of the information of nearby apparatuses so that the personal directory provides a service through the nearby apparatus based on a determination of whether or not said service request can be provided, wherein the determination is based on said user information.

Claim 48 (currently amended): The A-data communication method of according to Claim 47, which includes receiving wherein the service request is received through a service provider.

Claim 49 (currently amended): A computer program product embodied in a computer readable medium storing a program for enabling a mobile information processor to execute a process of obtaining information of nearby apparatuses, comprising:

a step of accessing a space directory which stores the information of the nearby apparatuses;

a step of transmitting, in response to a transmission challenge from the space directory, encrypted data of the challenge created by its own secret key together with a public-key certificate to the space directory;

a step of receiving the information of the nearby apparatuses from the space directory;
and

~~a step of storing the received information in a storage means~~

a step of acquiring user information from a remote user information database based on said information of at least one of the nearby apparatuses;

a step of requesting a communication service to a service provider based on the acquired user information; and

a step of utilizing said communication service based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.

Claim 50 (currently amended): A computer program product embodied in a computer readable medium storing a program for enabling a mobile information processor to execute a process of obtaining information of nearby apparatuses, comprising:

a step of accessing an information processor which stores apparatus information;

a step of transmitting, in response to a transmission challenge from the information processor, encrypted data of the challenge created by its own secret key together with a public-key certificate to the information processor;

a step of receiving the apparatus information from the information processor; and

~~a step of storing the received information in a storage means~~

a step of acquiring user information from a remote user information database based on said information of at least one of the nearby apparatuses;

a step of requesting a communication service to a service provider based on the acquired user information; and

a step of utilizing said communication service based on a determination of whether or not said communication service can be provided by said service provider, wherein the determination is based on said user information.

Claims 51 and 52 (canceled).

Claim 53 (currently amended): The A-mobile information processor of according to Claim 2654, wherein when executed by the processor, the instructions cause the processor to acquire said acquisition means acquires said user information based on an ID of said processor.

Claim 54 (currently amended): The A-mobile information processor of according to Claim 2654, wherein said nearby apparatuses include a nearby access point.